Medline and the National Health Service Economic Evaluation Database (NHSEED) were searched from their inception up to October 2009. Included studies were those full economic evaluations describing both costs and consequences of a) CT angiography; b) MRI; c) SPECT; and d) stress ECHO in the diagnosis of CAD. Article selection was performed by independent pairs of researchers. Target data for extraction included: study first author and year of publication, imaging tests compared, type of economic analysis, reported costs and outcomes, incremental cost-effectiveness ratio (ICER), currency, and patient characteristics (i.e., known or suspected CAD and risk of CAD). The primary outcome of interest for the present systematic review was the ICER of each imaging test in relation to another test of interest being compared. **RESULTS:** A total of 12 studies were identified. Overall, of the selected strategies, stress ECHO was the most compared, followed by SPECT, and CT angiography and MRI. Results showed that (despite fewer studies) CT angiography was considered cost-effective in all comparisons, however in specific situations such as in the presence of high likelihood or prevalence of CAD or versus stress ECHO and MRI (no comparison was found against SPECT). Under base-case (average) situations, stress ECHO was reported to be relatively cost-effective, especially in contrast with SPECT and MRI, but not CT angiography. SPECT follows with few positive cost-effectiveness results, and MRI did not achieve any cost-effectiveness over the other remaining strategies. **CONCLUSIONS:** Therefore, according to the published economic data from the literature, a cost-effectiveness ranking is proposed for the four analyzed cardiac imaging strategies as follows: CT angiography (in the presence of high likelihood or prevalence of CAD) > stress ECHO > SPECT > MRI.

PCV77

COST EFFECTIVENESS ANALYSIS THE PREVENTION OF VENOUS THROMBOEMBOLISM IN IMMOBILIZED PATIENTS (PREVENT) TRIAL: THROMBOPROPHYLACTIC TREATMENT WITH DALTEPARIN VERSUS PLACEBO IN ACUTELY ILL PATIENTS

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OBJECTIVES: Use of venous thromboembolism (VTE) prophylaxis among hospitalized patients is very low at approximately 42% (Goldhaber 2004). This analysis quantifies whether thromboprophylactic treatment with dalteparin in acutely ill patients is cost saving due to avoided VTE. **METHODS:** Randomized clinical trial VTE data from the Prevention of Venous Thromboembolism in Immobilized Patients (PREVENT) trial were used to determine dalteparin and placebo VTE event rates. Costs were obtained from two published sources Oster *et al.* (2004) and MacDougall *et al.* (2006). Oster *et al.* reports on short term charged costs (90 days) while MacDougall *et al.* on long term (one year) paid costs. Costs were converted to 2008 US dollars using the CPI. Cost for dalteparin was calculated as $29.34 (2009 WAC pricing) for 5000 IU once daily for 14 days, while the cost of placebo is zero. **RESULTS:** In PREVENT, 2991 patients were randomized (1518 to dalteparin, 1473 to placebo). Dalteparin patients experienced 32 VTE events while placebo had 64. The short term cost of in-hospital VTE was $17,552 higher than matched controls ($P < 0.01$) and short term post-discharge VTE cost was $5765 higher than matched controls ($P = 0.01$) (Oster *et al.*), while the long term annual adjusted mean total claims cost was $30,400 (MacDougall *et al.*). In aggregate, VTE events cost $1,393,914 for dalteparin patients versus $1,550,112 for placebo in the short term with a cost savings of $156,197 for patients utilizing dalteparin. The total annual costs for treating 32 VTE patients plus cost of dalteparin was $1,783,425 as compared to $2,329,132 for treating 64 VTE patients on placebo, giving an annual cost savings of $545,708 for utilizing dalteparin. **CONCLUSIONS:** Thromboprophylactic treatment with dalteparin reduces short term costs by $156,197 ($102.89 per person) and long term annual costs by $545,708 ($359.49 per person) in acutely ill patients at risk for VTE.

PCV78

A PHARMACOECONOMICS ASSESSMENT OF SILDENAFIL IN THE MANAGEMENT OF PULMONARY ARTERIAL HYPERTENSION IN PEDIATRICS: THE MEXICAN CASE

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OBJECTIVES: Pulmonary arterial hypertension (PAH) is a chronic disabling condition that affects both adults and children. The aim of this study was to evaluate the cost-effectiveness of sildenafil to manage PAH in pediatric (<18 years), functional class III, patients, who have failed previously to calcioantagonists, from the Mexican institutional perspective. **METHODS:** A five-state Markov model was performed to estimate one year costs and health consequences (one-month cycle). Effectiveness measures were: increase in cardiac index (%) and exercise tolerance (%), as well as reduction in pulmonary vascular resistance (%), hospital length of stay (LOS, days) and discontinuation rate due to adverse events. Transition probabilities were obtained from a meta-analysis involving national and international published literature. Doses of comparators used in the assessment were sildenafil (60 mg/day) and bosentan (125 mg/day, reference alternative). Resource use and costs were obtained from hospital records (n = 120) from the Instituto Mexicano del Seguro Social. Costs include hospital stay, laboratory and respiratory function tests, imagenology, drugs and adverse events management. The model was validated according to international guidelines. Sensitivity analyses were performed employing bootstrapping techniques. **RESULTS:** Per patient associated costs for sildenafil, and bosentan were [CI 95%]: US$13,373 [US$11,965–US$15,495] and US$20,110 [US$19,589–US$20,631], respectively. Sildenafil is associated to an increase of 8.05% [7.87%–8.24%] in cardiac index and of 10.14% [9.96%–10.33%] in exercise tolerance, as well as to a reduction of 1.5% [1.32%–1.68%] in pulmonary vascular resistance, 11.54 [11.36–11.72] in discontinuation rate (per 1000) and 8.90 days [8.72 days–9.09 days] in LOS, respectively. In consequence, sildenafil represents the most attractive therapy to manage PHA in terms of cost-effectiveness. **CONCLUSIONS:** In the Mexican institutional setting, sildenafil demonstrated to be a cost-saving therapy to manage PHA in pediatric, functional class III, patients,wich should be considered in order to allocate institutional resources efficiently.

PCV79

COST-EFFECTIVENESS OF DALTEPARIN IN THE MANAGEMENT OF UNSTABLE ANGINA/NON-ST-SEGMENT ELEVATION MYOCARDIAL INFARCTION (UA/NSTEMI) EVENTS IN ADULT PATIENTS IN MEXICO

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OBJECTIVES: Updated clinical practice guidelines recommend antithrombotic agents to minimize complications and deaths following UA/NSTEMI events. The purpose of this study was to estimate the cost-effectiveness of different antithrombotic agents in the management of UA/NSTEMI, from the institutional perspective. **METHODS:** A seven-state Markov model was performed to estimate health and economic consequences during a time horizon of five weeks (one–week cycles). Effectiveness measures were reduction in incidence of acute myocardial infarct (AMI) and recurrence of angina, as well as avoided events of myocardial revascularization and deaths associated to acute coronary syndrome. Transition probabilities were obtained from a meta-analysis employing international published literature. Doses of comparators were: dalteparin (240 UI/kg/day); enoxaparin (2 mg/kg/day); fondaparinux(5 mg/day); nadroparin(172 IU/kg/day) and unfractionated heparin(UFH 15,000 IU/day). Resource use was obtained from the Social Security Mexican Institute hospital records (n = 5000). Costs were extracted from government and institutional sources and include hospitalization, drugs, medical procedures, imagenology, laboratory tests and adverse events management. Probabilistic sensitivity analyses were performed employing bootstrapping techniques. Acceptability curves were constructed. **RESULTS:** Dalteparin, enoxaparin, fondaparinux, nadroparin and UHF (reference alternative) associated costs per patient were: US$2501 (+19%), US$2531 (+20%), US$2226 (+6%), US$2556 (+21%) and US$2179, respectively. Dalteparin is the only alternative that exhibits better health outcomes than reference in all considered effectiveness measures ($p < 0.05$ in AMI and myocardial revascularization). Incremental cost-effectiveness ratios (ICER [CI95%]) for dalteparin compared to UHF were US$10,916 [US$10,703-US$11,128] and US$3,509 [US$3,440-US$3,577], per additional AMI reduced and additional myocardial revascularization avoided, respectively. At a willingness to pay of US$15,800 per additional AMI avoided, acceptability curves showed that the probability that dalteparin be cost-effective is close to one, while for enoxaparin is negligible. **CONCLUSIONS:** Regarding AMI reduction and avoided myocardial revascularization, dalteparin represents a cost-effective antithrombotic therapy in Mexican patients who suffered UA/NSTEMI due its higher efficacy and reasonable incremental costs.

PCV80

ECONOMIC ANALYSIS OF ENOXAPARIN IN COMPARISON WITH FONDAPARINUX IN THE TREATMENT OF DEEP-VEIN THROMBOSIS (DVT)

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OBJECTIVES: The purpose was to conduct a cost-effectiveness analysis (CEA) of enoxaparin versus fondaparinux in the treatment of deep-vein thrombosis (DVT) in Poland. **METHODS:** Data concerning efficacy and safety of compared therapies were taken from the clinical-effectiveness analysis which was based on the systematic literature review. Due to lack of statistically significant differences in comparison of enoxaparin versus fondaparinux, economic profitability estimation was performed as a cost-minimisation analysis. Decision model was created by using MS *Excel*. Total costs of analysed therapies were estimated from the perspective of both payers in Poland (National Health Fund and patient). The minimisation analysis involved comparison of treatment with enoxaparin (1 mg/kg body mass, twice daily) versus fondaparinux (5; 7,5 or 10 mg—depending on the patient's body mass, once daily). The time horizon of the analysis was 3 months (consistent with clinical trials). It was assumed that efficiency of interventions in that period of observation was constant. The costs were not discounted. The stability of obtained results was checked in one-way and two-way sensitivity analysis through change of key parameters and assumptions of the model. **RESULTS:** The results of the cost-minimisation analysis are as following: treatment of one patient using enoxaparin in the 3 month time horizon is 312.50 PLN cheaper than fondaparinux therapy. Clinical effects of assessed treatment strategies are comparable, based on the data from randomised clinical trials. One-way and two-way sensitivity analysis proved that therapy with enoxaparin is a less costly than with fondaparinux in the treatment of deep-vein thrombosis for most parameters taken into account in the sensitivity analysis. **CONCLUSIONS:** Treatment of deep-vein thrombosis using enoxaparin is a less expensive option in comparison with fondaparinux from both payers' perspective (National Health Fund and patient) in Poland.